DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	SWEAT POND	Lake Area (ha):	2.43
Town:	ERROL	Maximum depth (m):	7.0
County:	Coos	Mean depth (m):	2.0
River Basin:	Androscoggin	Volume (m^3):	51000
Latitude:	44°46'20" N	Relative depth:	3.9
Longitude:	71°12'05" W	Shore configuration:	1.60
Elevation (ft):	1950	Areal water load (m/yr):	12.53
Shore length (m):	900	Flushing rate (yr^{-1}):	6.10
Watershed area (ha):	58.8	P retention coeff.:	0.52
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:		11 February 1992	7 August 1991
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 99%	MALLOMONAS 75%
	#2		DINOBRYON 15%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			
CHLOROPHYLL-A (µg/L)			1.66
DOM. ZOOPLANKTON (% TOTAL)	#1	CALANOID COPEPODS 64%	KERATELLA 31%
	#2	POLYARTHRA 36%	CALANOID COPEPODS 27%
	#3		TRICHOCERCA 15%
ROTIFERS/LITER		5	54
MICROCRUSTACEA/LITER		9	40
ZOOPLANKTON ABUNDANCE (#/L)		14	94
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			5.5
BOTTOM DISSOLVED OXYGEN (mg/L)		2.9	0.1
BACTERIA (fecal col., #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	5.0
Hypolimnion volume (m^3) :	100
Anoxic volume (m^3) :	75

CHEMICAL: **Lake: SWEAT POND**
Town: ERROL

	11 February 1992		7 August 1991		
DEPTH (m)	2.5	4.5	2.0	4.5	6.5
pH (units)	5.8	5.8	6.1	5.9	5.8
A.N.C. (Alkalinity)	2.9	3.1	2.1	2.0	3.2
NITRATE NITROGEN	< 0.02	< 0.02	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.003	0.003	0.014	0.012	0.027
CONDUCTIVITY (μmhos/cm)	20.8	20.4	15.2	16.4	19.8
APPARENT COLOR (cpu)	12	13	13	16	44
MAGNESIUM			0.34		
CALCIUM			1.3		
SODIUM			< 1.0		
POTASSIUM			< 0.40		
CHLORIDE	< 3	< 3	< 2		< 2
SULFATE	4	4	4		3
TN : TP					
CALCITE SATURATION INDEX			4.8		

All results in mg/L unless indicated otherwise

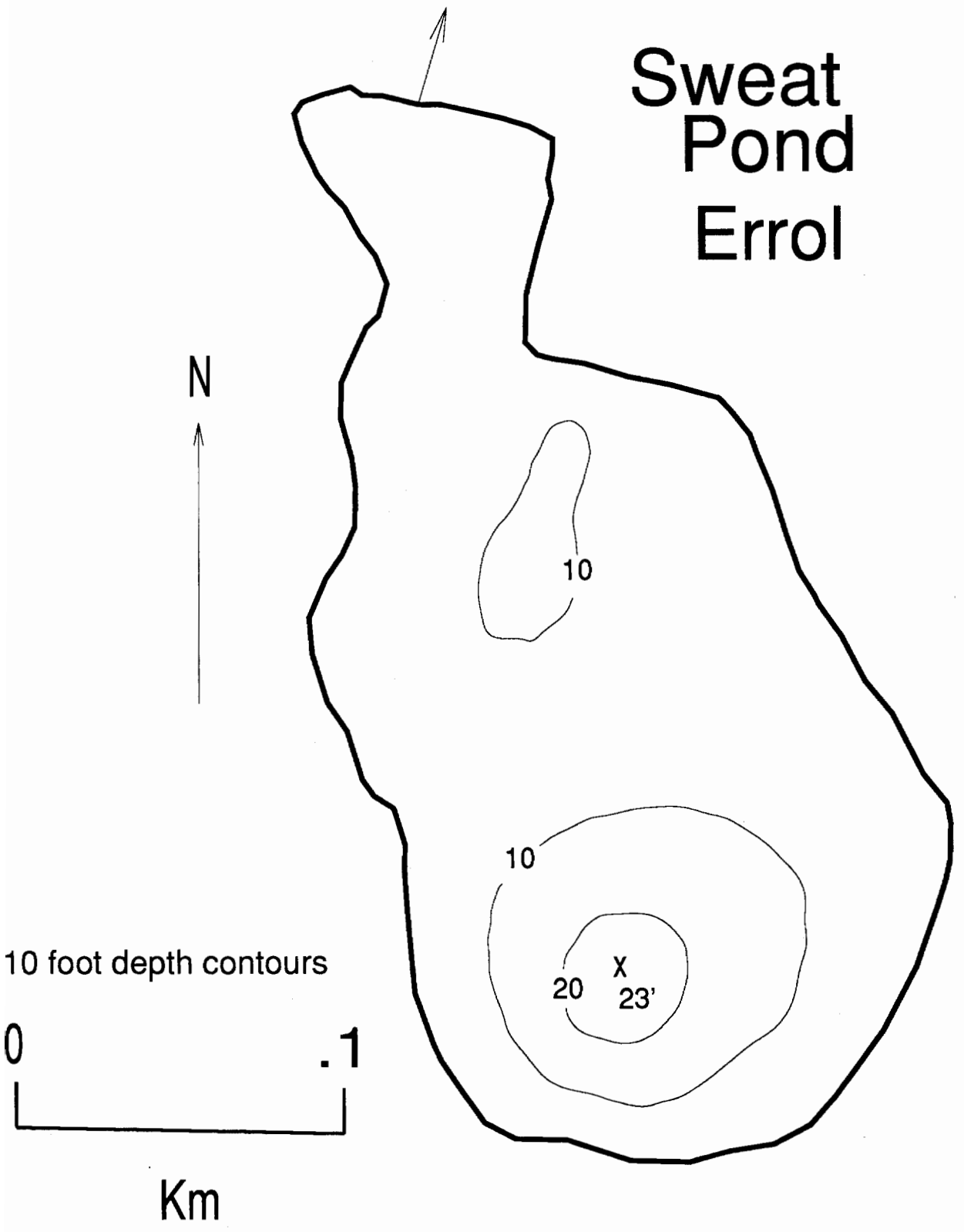
TROPHIC CLASSIFICATION: 1991

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
4	1	3	0	8	Meso.

COMMENTS:

1. This is a remote pond, less than 10 acres, sampled cooperatively with the NH Fish and Game Department. It is also monitored on an annual basis, since 1982, as part of the program to assess acid rain impacts on high elevation remote trout ponds.

2. No wholewater plankton results are available.


Sweat
Pond
Errol
N
10
10
20
X
23'
10 foot depth contours
0
.1
Km

FIELD DATA SHEET

LAKE: SWEAT POND
DATE: 08/07/91

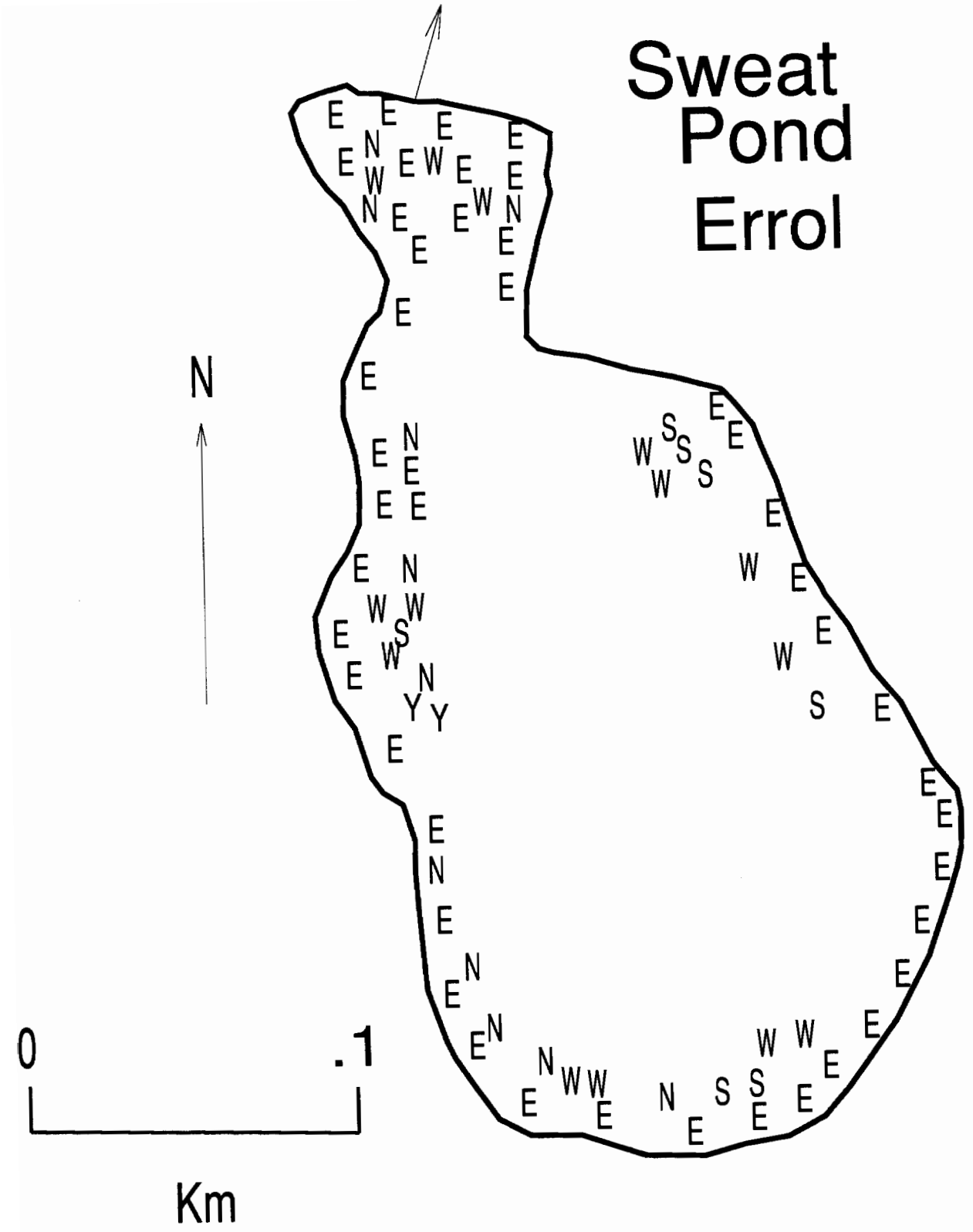
TOWN: ERROL
WEATHER: PARTLY CLOUDY, WARM & BREEZY

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	20.0	8.1	89 %
	1.0	19.8	8.1	87 %
	2.0	19.8	8.1	87 %
	3.0	19.0	8.0	86 %
	4.0	18.5	8.0	82 %
	5.0	14.0	7.8	74 %
	6.0	10.3	2.5	22 %
	7.0	9.0	0.1	1 %

SECCHI DISK (m): 5.5
BOTTOM DEPTH (m): 7.0
TIME: 1130

COMMENTS:

*Dissolved oxygen values are in mg/L


Sweat
Pond
Errol
N
0
.1
Km

AQUATIC PLANT SURVEY

LAKE: SWEAT POND TOWN: ERROL DATE: 08/07/91

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
E	Eriocaulon septangulare	Pipewort	Common
W	Potamogeton	Pondweed	Scattered
N	Nymphaea	White water lily	Scattered
Y	Nuphar	Yellow water lily	Scattered
S	Sparganium	Bur reed	Scattered
U	Utricularia	Bladderwort	Scattered

OVERALL ABUNDANCE: Common

GENERAL OBSERVATIONS:

1. Bladderwort was observed on the western side of the pond but was not abundant. It is not depicted on the map.
2. The overall abundance is rated 'common' because of the pipewort. Because of the small size of pipewort, plant abundance in the pond appears to be 'sparse/ scattered' at first glance.